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(54) COOLING METHOD AND COOLING DEVICE FOR HIGH TEMPERATURE-REDUCED PELLET

(57)Abstract:

PURPOSE: To prevent the reoxidation and degradation of high temp.-reduced pellets by introducing the pellets into the cooling water reservoirs of a rotary cooler and rapidly cooling the pellets in a high temp. oxidation region, then discharging the pellets to the rear of the rotary cooler and slowly cooling the pellets.

CONSTITUTION: The high temp.-reduced pellets discharged from a rotary kiln 1 are introduced via a scraping device 4 provided around the inlet side of the rotary cooler 3 into plural pieces of the cooling water reservoirs. The reduced pellets 18 are cooled rapidly down to 500 to 600° C by regulating the rotating speed and cooling water flow of the rotary cooler 3. The reduced pellets 18 are thereafter discharged from the apertures of the cooling water reservoirs 19 and are fed to the rear of the rotary cooler 3. The reduced pellets 18 discharged therefrom are cooled by the cooling water injected from sprinkling nozzles 12. The products which have about $\leq 0.5\%$ moisture content, lessens the degradation and has about $\leq 2\%$ reoxidation are obtd. in this way.

